ABSTRACT

A robust recursive operator for fast implementation of the computationally intensive module of Retinex-type image enhancement algorithms. The proposed module includes a cascaded recursive filter. The parameters of the filter are a function of the input signal, and are scale independent. Furthermore, the image is first processed according to an open and close prefilter, followed by application of the cascaded recursive filters. After application of the cascaded recursive filters, a post filter maximum output is applied to the signal. The module will usually be used as a part of a Retinex-type image processing system, which might use it after some preprocessing of an input image, and which will result in a manipulation of the input image and the module's output image.